NEUROLOGICAL/GENETIC DISORDERS (Migraine, Alzheimer's, Parkinson's, MS, Epilepsy, Brain Injury, Hunter Syndrome, Insomnia)

NEUROLOGICAL/GENETIC DISORDERS (Migraine, Alzheimer's, Parkinson's, MS, Epilepsy, Brain Injury, Hunter Syndrome, Insomnia)—Clinical Outcomes Studies

PNL1

HOW COGNITIVE FUNCTION AFFECTS ACTIVITIES OF DAILY LIVING IN PATIENTS WITH ALZHEIMER'S DISEASE

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OBJECTIVES: To attach meaningfulness to clinically relevant differences on cognitive functioning using activities of daily living. **METHODS:** Baseline data from a 12-week clinical trial of patients with mild-to-moderate Alzheimer's disease (n = 212). Logistic regressions were used to examine the effect of the Mini Mental State Exam (MMSE) and, separately, the Alzheimer's Disease Assessment Scale-cognitive subscale (ADAS-cog) on the Alzheimer's Disease Cooperative Study-Activity of Daily Living Inventory (ADCS-ADLI), after controlling for age and gender. A 3-point improvement on each of the two measures of cognitive function (MMSE and ADAS-cog) was taken a priori to be a clinically relevant difference between patients. Under that definition, an odds ratio (OR) of successfully performing each of 49 different activities of daily living was obtained. **RESULTS:** Subjects had a mean age of 75 years (SD = 8; range: 50–90) and were mostly white (92%) and female (58%). The Pearson correlation between ADAS-Cog and MMSE scores was –0.77 (p-value < 0.01). A statistically significant association (p-value < 0.05) existed between ADAS-Cog and 24 ADCS-ADLI items, and between MMSE and 22 ADCS-ADLI items. For these items, estimated odd ratios of performing an activity of daily living were 1.15 to 1.49 times more likely for every 3-point improvement in ADAS-Cog, and 1.3 to 2.3 times more likely for every 3-point improvement in MMSE. A 3-point improvement in ADAS-Cog (MMSE) reflected an average increase of 27% (62%) in the odds of performing activities of daily living. **CONCLUSION:** Linking clinically relevant differences on two common measures of cognitive functioning (MMSE and ADAS-cog) to activities of daily living can enhance the interpretation of these measures.

PNL2

OXCARBAZEPINE REDUCES HOSPITALISATIONS FOR EPILEPTIC SEIZURES AND RELATED SYMPTOMS IN THE NETHERLANDS: A PHARMO STUDY

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OBJECTIVES: The purpose of this study is to investigate the incidence of hospitalisations for epileptic seizures and related events before and after the start of therapy with oxcarbazepine. **METHODS:** All patients using oxcarbazepine or any other antiepileptic drug are selected (Jan 1991–Jan 2001) from the PHARMO Record Linkage System, a patient-centric database including complete histories of drug use and hospitalisations for more than 1.6 million residents in The Netherlands. Information collected included diagnosis, drug type and daily dosage, legend duration of use, drug costs, reasons for hospital admission and discharge, and resources used during hospital stay. Patients had to have at least 1 year of data before and after their first oxcarbazepine prescription (index date), and had to have been on oxcarbazepine therapy for at least one year. Poisson regression analysis was applied to estimate the incidence density rates as proxy for the relative risk of hospitalisation while on and off therapy with oxcarbazepine. **RESULTS:** This study included 360 patients using oxcarbazepine and show that the incidence rate of hospitalisations for epileptic seizures and related events decreased significantly during the first year after the start of oxcarbazepine compared to the 1-year period before the start of treatment with oxcarbazepine. During the year prior to receiving oxcarbazepine therapy, 117 hospitalisations per 1000 person years (n = 41) were observed in the study patients compared with 40 hospitalisations per 1000 person years (n = 11) after initiating oxcarbazepine therapy, yielding a relative risk of 0.3 (95% CI: 0.2–0.7). **CONCLUSIONS:** Treatment with oxcarbazepine significantly reduces the occurrence of epilepsy-related hospitalizations.

NEUROLOGICAL/GENETIC DISORDERS (Migraine, Alzheimer's, Parkinson's, MS, Epilepsy, Brain Injury, Hunter Syndrome, Insomnia)

NEUROLOGICAL/GENETIC DISORDERS (Migraine, Alzheimer's, Parkinson's, MS, Epilepsy, Brain Injury, Hunter Syndrome, Insomnia)—Cost Studies

PNL3

PREDICTORS OF LOST PRODUCTIVITY AMONG EMPLOYEES WITH MIGRAINE HEADACHES IN A MEDICAL GROUP SETTING: IMPLICATIONS FOR WORKSITE DISEASE MANAGEMENT PROGRAMS

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OBJECTIVE: Determine predictors of reduced productivity (absenteeism and presenteeism) among employees experiencing migraines. **METHODS:** Seven hundred twelve Health Risk Assessment surveys were distributed to health care workers in a large, multispecialty medical group in Southern California; 455 returned (64% response rate). One hundred eighty met IHS migraine criteria (defined by severity and frequency of symptoms). Respondents were 92% female; mean age of 37. Migraineurs were asked about absenteeism (full and partial days missed due to headache) and presenteeism (days worked with headache and self-reported productivity with headache) over the most recent 4-week period. **RESULTS:** A total of 68.3% (n = 123) of migraineurs reported some level of productivity loss, with a mean of 14.2 hours. A hierarchical stepwise multiple regression was conducted to identify significant predictors of productivity loss. With frequency and severity of migraines, and use of triptans and prescription pain medication blocked into the equation on the first step (R^2 of 23%) as clinical predictors, self-care activities (maintain regular sleep cycle, eat regularly, control diet to avoid triggers) and employee confidence in ability to control headaches (as employee predictors) added R^2 of 9.6%, for a total R^2 of 32.6% in productivity loss. As contrasted with employees reporting low confidence in ability to control headaches, their counterparts with high confidence had 11.6 fewer hours of lost productivity ($P < 0.05$). Employees actively engaged in self-care management activities (vs. not) experienced 5.3 fewer hours of lost productivity ($P < 0.05$). Among employee subgroup (n = 41) under current professional treatment for headaches, those satisfied with the provider's skill in helping them gain control of headache symptoms were significantly less likely to experience reduced productivity versus their dissatisfied counterparts (12.3 versus 23.3 hours, $P < 0.10$). **CONCLU-**